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By: George Cooper
George Cooper, Reg. No. 20,261

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of
Kurt W. Getreuer

Serial No. 08/485,070

Filed: June 7, 1995

For: OPTICAL DISC SYSTEM

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Art Unit: 2516

Examiner: (Currently Unknown)

Docket No. 9510287USIUSCIX1X1D1 MMMI

JUL 3 1996

OFFICE OF PETITIONS
AND TRADEMARKS

**PETITION UNDER 37 CFR §1.181 TO BIFURCATE
COMMINGLED APPLICATION PAPERS IN RELATED PATENT OFFICE FILES
AND TO REFILE BIFURCATED PAPERS IN PROPER FILE**

(Related Companion Petition Concurrently Filed In USSN 08/485,896)

VIA HAND DELIVERY

Commissioner for Patents
Office of Petitions
Washington, D.C. 20231

Dear Sir:

I. Introduction

This Petition is being filed as a necessarily related companion to the Petition
concurrently filed in U.S. Patent application, Serial No. 08/485,896 which was also filed
June 7, 1995, and is also entitled "Optical Disc System"

30 EK 04-1175 05/28/97 08485070
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Applicant acknowledges with appreciation the recent telephone conversations conducted with Examiner Tan Dinh of Group 2500, Art Unit 16 regarding the disposition of USSN 08/485,896, a Rule 60 divisional application. In view thereof, the Examiner issued therein the Office Action of May 29, 1996. This Petition is related to the concurrently filed Petition in response to Examiner Dinh's Office Action of May 29, 1996 issued in USSN 08/485,896. In preparing the other Petition in response to the subject Office Action, Applicant initially obtained a full copy of the Patent Office file for the other application, USSN 08/485,896.

The Patent Office file for the other application, USSN 08/485,896, currently contains application papers relating to this file, USSN 08/485,070. These two different applications are each Rule 60 divisional applications of their respective parent applications. Thus, in further preparing the two Petitions, Applicant obtained copies of the Patent Office file for this application, USSN 08/485,070, and each of the parent applications concerned herein. Coincidentally, the Patent Office file for this application, USSN 08/485,070, contains papers relating the other divisional application, USSN 08/485,896. Applicant will rely on the obtained copies of the Patent Office files to present the issues and Exhibits of this Petition.

II. Recitation of Facts Relating to Current Status of Relevant Patent Office Files

A. First Parent Application, USSN 08/420,380 Attorney Docket No. 951028(US)USC1X1X2 MMMI

On April 11, 1995 Applicant filed a patent application entitled "Optical Disc System". This application included a 233 page specification having claims 1-10 appearing on pages 228-232 of the specification and an Abstract on page 233 thereof. A copy of the first page of this specification, page 227, claims 1-10, and the Abstract are attached hereto as Exhibit A. Attached hereto as Exhibit B is a copy of Applicant's return postcard for this application,

USSN 08/420,380. The postcard is date stamped with a filing date of April 11, 1995 and also stamped with the Patent Office serial number for this case--that serial number being 08/420,380. The specification pages of Exhibit A have been annotated in redline by Applicant to indicate thereon the serial number of this first parent application and the current attorney docket number. Applicant notes that the current attorney docket number for this application, USSN 08/420,380, is slightly different than that indicated on the postcard of Exhibit B. Since the time of filing this first parent, Applicant has instituted a change in nomenclature for its attorney docket numbers. That change includes replacing "CIP" with "X", dropping the "P", and moving the "MMMI" prefix to the end of the alphanumeric string as a suffix. Applicant also notes that the postcard of Exhibit B indicates that 119 sheets of drawing figures were originally filed. This is incorrect. It should be 128 sheets as are currently found in the Patent Office file and as correctly indicated on Applicant's original transmittal herefor.

Exhibit C hereto is a Combined Declaration and Power of Attorney for the application evidenced by the documents of Exhibits A and B. The Declaration of Exhibit C was duly executed by the identified inventor of this application on 5/4/95--that inventor being David L. Schell.

B. First Divisional Application, USSN 08/485,896
Attorney Docket No. 951028(US)USC1X1X2D1 MMMI

On June 7, 1995 Applicant filed a divisional application under 37 C.F.R. 1.60 claiming priority on the above-discussed first parent application, USSN 08/420,380. An enlarged copy of Applicant's date-stamped return postcard with the serial number of this first Rule 60 divisional application indicated thereon, 08/485,896, is attached hereto as Exhibit D. The postcard of Exhibit D has been annotated in redline by Applicant to emphasize certain information contained thereon as will be discussed in further detail below.

A copy of the application transmittal currently found in the Patent Office file for this application, USSN 08/485,896, is attached hereto as Exhibit E. The application transmittal of Exhibit E is ***the wrong application transmittal*** for this first divisional application. As indicated in the application transmittal of Exhibit E, the present serial number of 08/485,896 is indicated in the upper right hand corner thereof in handwritten notation with an indication thereunder which appears to be "PRe Amdt #A" and the initials "ARJ" with a hand noted date notation of 2-15-96. Also located next to the handwritten serial number is the stamp-marked Serial No. 08/485,070. This stamped-marked Serial No. 08/485,070, discussed in detail below in connection with the second divisional application, is crossed-out in hand notation by two parallel lines with an "A" indicated thereabove. Applicant's counsel's Attorney Docket No. 37436, D-1 is indicated thereon. As indicated above, Applicant's current docket number for this case is 951028(US)USC1X1X2D1 MMMI.

The text of the application transmittal of Exhibit E indicates that the intended divisional application is a divisional under 37 C.F.R. 1.60 of pending prior application 08/420,899, filed April 11, 1995 of Kurt W. Getreuer. This application transmittal of Exhibit E does not properly comport with the intended parent of this application indicated on the postcard of Exhibit D which clearly indicates that the intended parent of this first divisional application is USSN 08/420,380 (the first parent discussed above) and not USSN 08/420,899, the second parent discussed below.

Applicant believes that the application transmittal of Exhibit E was somehow relocated into the present file from its original file--that file being USSN 08/485,070 discussed below. This is believed to be true because the stamp-marked serial number, 08/485,070, must have been first placed in the upper-right hand corner of the application transmittal of Exhibit E before it was crossed-out. The inventor of the parent application, USSN 08/420,380, to this first Rule 60 divisional application is David L. Schell as indicated in the parent's Declaration of Exhibit C, and not Kurt W. Getreuer as indicated in the application transmittal of Exhibit E. Thus the return postcard of Exhibit D for this first

divisional application correctly recites "SCHELL" as inventor. It is, therefore, apparent that the application transmittal of Exhibit E does not belong in the Patent Office file for this first divisional application--USSN 08/485,896.

Exhibit F is a copy of selected pages of the specification currently found in the Patent Office file for this first divisional application, USSN 08/485,896. The specification evidenced by the pages of Exhibit F is ***the wrong specification*** for this first divisional application.

The specification currently found in the Patent Office file for this first divisional application, as evidenced by the pages of Exhibit F, is a document including consecutive pages 1-237 having claims 1-16 appearing on pages 227-236 and an Abstract on page 237. For purposes of identification, Exhibit F includes a copy of page 1, claims 1-16 appearing on the indicated pages, and the Abstract as currently found in the Patent Office file for this first divisional application. As is readily apparent from an inspection of the claims 1-16 of the specification as currently found in the Patent Office file for this first divisional application, USSN 08/485,896, there is non-conformance of this claim set with the claims 1-10 of the intended parent application, USSN 08/420,380. See Exhibit A hereto. Applicant thus believes that the specification currently contained in the Patent Office file for this first divisional application has been somehow misfiled therein.

Applicant further believes that the date stamped and serial number stamped return postcard of Exhibit D is sufficient prima facie evidence that Applicant had intended to, and did in fact file on June 7, 1995 a Rule 60 divisional of prior pending application Serial No. 08/420,380. Applicant acknowledges that an error occurs in Applicant's return postcard of Exhibit D. That error is identified in redline as a misidentification of the total number of pages of the specification as 223 pages. (Applicant notes that this method of counting specification pages does not include counting the pages of the claims and Abstract). That total page count, according to the employed method of counting, should have been 227, as illustrated by the sample pages of Exhibit A--and not 223 pages as recited in the

postcard of Exhibit D. Applicant believes that this error was a mere typographical and inadvertent error made without deceptive intent, which should not effect the decision on this Petition.

It is thus clear from an inspection of the application transmittal of Exhibit E and the sample specification pages of Exhibit F, as viewed in light of the postcard of Exhibit D and the parent specification of Exhibit A, that the wrong transmittal and specification are currently in the Patent Office file for this first divisional application. As explained in further detail below, Applicant believes that the correct application transmittal and specification for this file is currently located in the Patent Office for USSN 08/485,070--the second divisional discussed below.

In addition to the above, Applicant notes that the return postcard of Exhibit D indicates that 128 pages of drawings were originally filed in this first divisional application. Applicant has currently located only 119 sheets of drawing figures in the Patent Office file for this first divisional application. Applicant has addressed this matter in further detail in the concurrently filed related companion Petition relating to USSN 08/485,896.

C. Second Parent Application, USSN 08/420,899
Attorney Docket No. 951028(US)USC1X1X1 MMMI

On April 11, 1995 Applicant filed a second application also entitled "Optical Disc System". This application included a specification having 237 pages with claims 1-16 appearing on pages 227-236 and an Abstract on page 237. Sample pages 1 and 226-237 are attached hereto as Exhibit H. The pages of Exhibit H have indicated thereon in redline, the serial number for this second parent case, USSN 08/420,899 and Applicant's current docket number, 951028(US)USC1X1X1 MMMI.

Attached hereto as Exhibit I is Applicant's date stamped and serial number stamped return postcard for this second parent application. The postcard of Exhibit I clearly indicates thereon a filing date of April 11, 1995 and a stamp-marked serial number of

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08/485,070

08/420,899. The postcard further indicates Applicant's old docket number thereon, slightly obscured by the Mail Room stamp--that docket number being MMMI P951028(US)-USC1CIP1CIP1. The postcard of Exhibit I further indicates that the specification included 226 pages of text, 10 pages of claims (pages numbered 227-236), and one page of Abstract (on page 237) as indicated in the sample pages of Exhibit H.

Attached hereto as Exhibit J is the Combined Declaration and Power of Attorney filed in this second parent application, USSN 08/420,899, indicating that the inventor hereof is a Mr. Kurt W. Getreuer. The Declaration of Exhibit J also includes Applicant's old attorney docket number for this case, MMMI P951028(US)USC1CIP1CIP1.

D. Second Divisional Application, USSN 08/485,070
Attorney Docket No. 951028(US)USC1X1X1D1 MMMI

Also on June 7, 1995, Applicant filed a second Rule 60 divisional application. This second Rule 60 divisional application was filed as a divisional of pending prior application Serial No. 08/420,899, the above-discussed second parent application. Attached hereto as Exhibit K is an enlarged copy of Applicant's date stamped and serial number stamped return filing postcard for this second divisional application. The postcard of Exhibit K has been annotated in redline by Applicant to emphasize certain information contained thereon as will be discussed in further detail below.

As indicated in the postcard of Exhibit K, Applicant clearly intended to file a divisional application under 37 C.F.R. 160 of pending prior application Serial No. 08/420,899--the above-discussed second parent application. As further indicated in the postcard of Exhibit K, the recitation of 226 pages of specification (excluding the pages of the claims and the Abstract) comport with the intended parent hereof--08/420,899. See the copied pages therefrom in Exhibit H. Applicant, however, acknowledges that the indication of 5 pages of claims in the postcard of Exhibit K, is incorrect since the parent hereto includes 10 pages of claims as evidenced by the sample pages 227-236 of Exhibit

H. Applicant believes that this misidentification of the number of pages of claims, is of no consequence herein and should not otherwise invalidate a proper filing under Rule 60.

Exhibit L hereto is a copy of the application transmittal currently found in the Patent Office file for this second divisional application, 08/485,070. As indicated by the stamp-marked serial number on the first page of the transmittal of Exhibit L, this transmittal was originally assigned the Serial No. 08/485,896, which is coincidentally the serial number of the above-discussed first divisional application. That stamp-marked serial number, however, has been crossed out by hand notation, and the present serial number of this second divisional application has been written thereon in hand notation with the capital letter "A" placed therebefore. That hand-written serial number is 08/485,070 (the last "0" not appearing in Applicant's copy of the Patent Office file) which is the serial number for this second divisional application as indicated on the return postcard of Exhibit K. As indicated in the text of the transmittal of Exhibit L, the application originally filed therewith was intended to be a divisional of application 37 C.F.R. 1.60 of pending prior application serial number 08/420,380, filed April 11, 1995 in the name of inventor David Schell. The application transmittal of Exhibit L is ***the wrong application transmittal*** for this second divisional application. Coincidentally, however, this application transmittal of Exhibit L comports with the first divisional discussed above.

It is thus plainly clear that the transmittal currently found in the Patent Office file for application 08/485,070, Exhibit L, was originally filed in the first divisional discussed above 08/485,896. Similarly, the transmittal of Exhibit E currently found in the Patent Office file for Serial No. 08/485,896 was originally filed in this second divisional 08/485,070. It, therefore, appears that the two transmittals of Exhibits E and L have been improperly exchanged with their respective files.

Exhibit M hereto is a copy of sample pages from the specification currently found in the Patent Office file for this second divisional application, USSN 08/485,070. The specification evidenced by the pages of Exhibit M is ***the wrong specification*** for this

second divisional application. This specification as currently found in the Patent Office file includes a total of 233 pages consecutively numbered, including claims 1-10 appearing on pages 228-232 and an Abstract on page 233. This application is not a copy of the intended parent application hereof, USSN 08/420,899, but rather a copy of the first parent discussed above--USSN 08/420,380.

As is readily apparent from an inspection of the claims 1-10 of the specification as currently found in the Patent Office file for this second divisional application, USSN 08/485,070, there is non-conformance of this claim set with the claims 1-16 of the intended parent application, USSN 08/420,899 as indicated on the postcard of Exhibit K. See Exhibit H hereto for comparison. Applicant thus believes that the specification currently contained in the Patent Office file of this second divisional application has been somehow misfiled therein and, more specifically, possibly switched with the specification intended in the first divisional along with the evidently switched application transmittals of Exhibits E and L.

Applicant further believes that the date stamped and serial number stamped return postcard of Exhibit K is sufficient prima facie evidence that Applicant had intended to, and did in fact file on June 7, 1995 a Rule 60 divisional of prior pending application Serial No. 08/420,899. Applicant acknowledges that an error occurs in Applicant's return postcard of Exhibit K. That error is identified in redline as a misidentification of the number of pages of the claims as 5 pages. That total page count, should have been 10, as illustrated by the sample pages of Exhibit H. Applicant believes that this error was a mere inadvertent typographical error made without deceptive intent, and that it should not effect the decision on this Petition.

Applicant further believes, however, that this misidentification of pages of claims may have, along with the misidentified number of pages 223 in the return postcard of Exhibit D for the first divisional application, caused the switching and reassigning of

respective serial numbers between the first divisional application and the second divisional application.

It is thus clear from an inspection of the application transmittal of Exhibit L and the sample specification pages of Exhibit M, as viewed in light of the postcard of Exhibit K and the parent specification of Exhibit H, that the wrong transmittal and specification are currently in the Patent Office file for this second divisional application. As indicated above, Applicant believes that the correct application transmittal and specification for this file is currently located in the Patent Office for USSN 08/485,896--the first divisional discussed above.

In addition to the above, Applicant notes that the return postcard of Exhibit K does not indicate that any drawing sheets were originally filed in this second divisional application. Applicant believes that the omission of filing a copy of the parent drawing sheets was an administrative oversight that inadvertently occurred without deceptive intent. The first and second pages of Form PTO-436A, attached hereto as Exhibit N, appear to confirm that the Patent Office did not receive any drawing sheets for this second divisional application, USSN 08/485,070.

Applicant notes that the return postcard of Exhibit I indicates that 128 pages of drawings were originally filed in the second parent application USSN 08/420,899, that application being the parent of this second Rule 60 divisional application, USSN 08/485,070. This group of 128 sheets contains the correct Figs. 1-121 for this second divisional application--with an additional Fig. 77 not intended to be filed herein or in the corresponding parent. The unintended Fig. 77 has been canceled from the parent, USSN 08/420,899, by Preliminary Amendment filed therein on March 15, 1996. Applicant includes herewith as Exhibit O a full copy set of Figs 1-121 on the original 128 sheets obtained from the Patent Office file for the parent, USSN 08/420,899, of this second Rule 60 divisional application, USSN 08/485,070.

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08/485,070

In view of the above Applicant thus Petitions, as a secondary matter, that the intended Figs. 1-121 on the original 128 sheets of the parent be entered herein. Applicant believes the entry of the intended Figs. 1-121 herein from the parent hereof is appropriate because this second divisional application, USSN 08/485,070, is considered a proper Rule 60 filing--notwithstanding the misfiling problems addressed in the primary portion of this Petition. Applicant will cancel the unintended Fig. 77 herefrom after receipt of a favorable decision on this Petition.

III. Petition to Bifurcate Second Application From Patent Office File

Applicant acknowledges with appreciation the June 18, 1996 telephone discussion conducted with Examiner Nam Nguyen of the Office of Petitions regarding the disposition of the cases of this Petition. In accordance therewith, Applicant does not include herewith a copy of the parent application as filed since the applications are rather lengthy. Applicant will alternatively request that the specification and transmittal of the first divisional be exchanged for the specification and transmittal of the second divisional.

In view of the above, Applicant petitions to have the application transmittal of Exhibit L and the specification evidenced by the sample pages in Exhibit M as currently found in the Patent Office file for U.S. Patent Application Serial No. 08/485,070 removed therefrom and placed in the Patent Office file for U.S. Patent Application Serial No. 08/485,896. Concurrently therewith, Applicant further petitions to have the application transmittal of Exhibit E and the specification evidenced by the sample pages in Exhibit F as currently found in the Patent Office file for U.S. Patent Application Serial No. 08/485,896 removed therefrom and placed in the Patent Office file for U.S. Patent Application Serial No. 08/485,070. Alternatively, Applicant will provide, if requested, a correct and complete copy of the parent for filing herein.

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PATENT

As a related ancillary matter, Applicant kindly requests that a filing receipt for this second divisional application, USSN 08/485,070, made consistent with the matters addressed herein, be issued upon a favorable decision on this Petition.

If the Office of Petitions believes that contact with Applicant's attorney would be advantageous toward the disposition of this case, the Office of Petitions is herein kindly requested to call Applicant's attorney at the phone number noted below.

Respectfully submitted,

DISCOVISION ASSOCIATES



Donald Bollella
Reg. No. 35,451

Date: July 29, 1996

DISCOVISION ASSOCIATES
P.O. Box 19616
Irvine, California 92713
(714) 660-5000

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USSN 08/420,380
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MAMS

OPTICAL DISC SYSTEM

CROSS REFERENCE TO RELATED APPLICATIONS.

5 This is a continuation-in-part of Ser. No. 08/376,882, filed January 20, 1995, which is a continuation-in-part of Ser. No. 08/105,866, filed August 11, 1993, which is a continuation of Ser. No. 07/657,155, now U.S. Patent No. 5,265,079, filed February 15, 1991.

BACKGROUND OF THE INVENTION

10 **1. Field of the Invention.**

The present invention relates to data storage systems of the type that include a housing having an opening for receipt of a removable disc cartridge in which an information recording medium is mounted for protection. More particularly, it relates to a system for rapidly encoding and writing information onto optical disks in a high density format, and for reading and decoding the information written thereon.

2. Description of the Related Art

20 **Overview.**

The demand for mass data storage continues to increase with expanding use of data processing systems and personal computers. Optical data storage systems are becoming an increasingly popular means for meeting this expanding demand. These optical data systems provide large volumes of relatively low-cost storage that may be quickly accessed.

circuit of the present invention has a minimal impact on phase.

While the prior art compensation circuits also can be seen to have minimum phase impact, only the compensation circuit of the present invention has a notch filter at a frequency of one
5 half the digital sampling frequency. With proper choice of sampling frequency, this notch filter can be used to notch parasitic mechanical resonance frequencies, such as those of the servo motor being compensated. In drive 10 (Fig. 1) the single
10 lead complex lag compensation circuit is used to suppress mechanical decoupling resonance of the fine and focus servo motors as shown in appendix 2-2.

To the extent not already disclosed, the following U.S. Patents are herein incorporated by reference: Grove et al., U.S. Pat. No. 5,155,633; Prikryl et al., U.S. Pat. No. 5,245,174;
15 Grassens, U.S. Pat. No. 5,177,640.

Although the preferred embodiment of the present invention has been described and illustrated above, those skilled in the art will appreciate that various changes and modifications can be made to the present invention without departing from its spirit.
20 Accordingly, the scope of the present invention is limited only by the scope of the following appended claims.

What is claimed is:

1. A method of changing a rotational rate of a storage medium
from an initial rotational rate to a desired rotational rate
5 having a lower acceptable limit and an upper acceptable limit,
comprising the steps of:

10 applying a force to said storage medium to change the
rotational rate of said storage medium from said initial
rotational rate toward a first upper limit, said first upper
limit being between said initial rotational rate and said
desired rotational rate;

15 while performing said step of applying, generating a first
signal when the rotational rate of said storage medium
exceeds said first upper limit;

20 while performing said step of applying and after said step
of generating said first signal, generating a second signal
when said rotational rate of said storage medium exceeds
said lower acceptable limit; and

25 thereafter terminating said application of said force to
said storage medium.

2. A method of changing a rotational rate of a storage medium,

as defined in claim 1, further comprising the step of:

after said step of generating said first signal and before
said step of generating said second signal, decreasing the
5 magnitude of said force applied to said storage medium.

3. A method of changing a rotational rate of a storage medium,
as defined in claim 1, wherein said step of terminating further
comprises the steps of:

10 setting a second upper limit at said upper acceptable limit
of said desired rotational rate;

15 setting a lower limit at said lower acceptable limit of said
desired rotational rate; and

terminating said application of said force to said storage
medium when said rotational rate of said storage medium is
greater than said lower limit.

20 4. A method of changing a rotational rate of a storage medium,
as defined in claim 3, wherein said upper acceptable limit of
said desired rotational rate is greater than said lower
acceptable limit of said desired rotational rate.

25 5. A method of achieving a desired rotational rate, as defined

in claim 4, wherein:

said upper acceptable limit is one-half of one percent greater than said desired rotational rate; and

5

said lower acceptable limit is one-half of one percent less than said desired rotational rate.

6. A method of changing a rotational rate of a storage medium
10 from an initial rotational rate to a desired rotational rate having a lower acceptable limit and an upper acceptable limit, comprising the steps of:

--

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applying a force to said storage medium to change the rotational rate of said storage medium from said initial rotational rate toward a first lower limit, said first lower limit being between said initial rotational rate and said desired rotational rate;

20

while performing said step of applying, generating a first signal when the rotational rate of said storage medium drops below said first lower limit;

25

while performing said step of applying and after said step of generating said first signal, generating a second signal when said rotational rate of said storage medium drops below

said upper acceptable limit; and

thereafter terminating said application of said force to
said storage medium.

5

7. A method of changing a rotational rate of a storage medium,
as defined in claim 6, further comprising the step of:

10

after said step of generating said first signal and before
said step of generating said second signal, decreasing the
magnitude of said force applied to said storage medium.

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8. A method of changing a rotational rate of a storage medium,
as defined in claim 6, wherein said step of terminating further
comprises the steps of:

20

setting a second lower limit at said lower acceptable limit
of said desired rotational rate;

setting an upper limit at said upper acceptable limit of
said desired rotational rate; and

25

terminating said application of said force to said storage
medium when said rotational rate of said storage medium is
less than said upper limit.

9. A method of changing a rotational rate of a storage medium, as defined in claim 8, wherein said upper acceptable limit of said desired rotational rate is greater than said lower acceptable limit of said desired rotational rate.

5

10. A method of achieving a desired rotational rate, as defined in claim 9, wherein:

10

said upper acceptable limit is one-half of one percent greater than said desired rotational rate; and

said lower acceptable limit is one-half of one percent less than said desired rotational rate.

ABSTRACT

There is disclosed a method of changing a rotational rate of a storage medium by applying a force to the storage medium to change the rotational rate from an initial rotational rate toward a first upper limit. The first upper limit is between the initial rotational rate and a desired rotational rate. While performing the step of applying, a first signal is generated when the rotational rate exceeds the first upper limit. After generating the first signal, a second signal is generated when the rotational rate exceeds a lower acceptable limit of the desired rotational rate. Thereafter, the application of force is terminated. To terminate the application of force, a second upper limit may be set at an upper acceptable limit of the desired rotational rate, a lower limit may be set at the lower acceptable limit of the desired rotational rate, and the application of force may be terminated when the rotational rate is greater than the lower limit. Another method is disclosed for changing the rotational rate of a storage medium from a faster rate to a slower rate.

UTILITY PATENT APPLICATION

DATE: 4/11/95

Verification of Utility Patent Application received in the U.S. Patent & Trademark Office on the date stamped hereon.

Via Certificate of Mail No.: EG 220108165 US
DVA Docket No.: mmmi P1028 (4) US C1 C1 P1 C1 P2
Applicant: Discusion Resrc.
Title: Optical Disc System
Verified by (Initials): PK

- ☒ Transmittal Sheet in duplicate
- ☒ 22 pgs. Specification
- ☒ 5 pgs. Claims
- ☒ 1 pgs. Abstract
- ☒ 19 pgs. Drawings
- ☒ 1 pgs. Assignment

- ☒ Declaration & Power of Attorney
- ☒ Certificate of Express Mail
- ☒ Fees enclosed
- ☒ Charge deposit account
- ☒ Return Postcard
- ☐ Assignment Transmittal in duplicate



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☒ Appendices 1-1 (196 pages); Appendix 1-2 (77 pages); Appendix 1-3 (12 pages)
☒ Appendix 1-4 (9 pages); Appendix 1-5 (18 pages); Appendix 1-6 (36 pages)
x Appendix 2-1 (9 pages).

Should have been 128 as indicated in application transmittal and found in file

COMBINED DECLARATION AND POWER OF ATTORNEY

(ORIGINAL, DESIGN, NATIONAL STAGE OF PCT, SUPPLEMENTAL, DIVISIONAL, CONTINUATION OR C-I-P)

As a below named inventor, I hereby declare that:

TYPE OF DECLARATION

This declaration is of the following type: (check one applicable item below)

 X original

_____ design

supplemental

Note: supplemental
If the declaration is for an International Application being filed as a divisional, continuation or continuation-in-part application, do not check next item; check appropriate one of last three items.

 national stage of PCT

Note: _____ national stage of PCT
If one of the following 3 items apply, then complete and also attach **ADDED PAGES FOR DIVISIONAL, CONTINUATION OR C-I-P.**

divisional

 continuation

 X continuation-in-part (C-I-P)

INVENTORSHIP IDENTIFICATION

WARNING: *If the inventors are each not the inventors of all the claims, an explanation of the facts, including the ownership of all the claims at the time the last claimed invention was made, should be submitted.*

My residence, post office address and citizenship are as stated below next to my name. I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

TITLE OF INVENTION
OPTICAL DISC SYSTEM

SPECIFICATION IDENTIFICATION

the specification of which: (complete (a), (b) or (c))

(a) _____ is attached hereto.

(a) _____ is attached hereto.

(b) _____ was filed on _____ as _____ Serial No. 0 / _____ and was
or _____ Express Mail No., as Serial No. not yet known _____ (if applicable).
amended on _____

Note: Amendments filed after the original papers are deposited with the PTO which contain new matter are not accorded a filing date by being referred to in the declaration. Accordingly, the amendments involved are those filed with the application papers or, in the case of a supplemental declaration, are those amendments claiming matter not encompassed in the original statement of invention or claims. See 37 CFR 1.67.

(c) _____ was described and claimed in PCT International Application No. _____
filed on _____ and as amended under PCT Article 19 on _____ (if any).

ACKNOWLEDGEMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information

 X which is material to patentability as defined in 37, Code of Federal Regulations, § 1.56

(also check the following items, if desired)

 X and which is material to the examination of this application, namely, information where there is a substantial likelihood that a reasonable examiner would consider it important in deciding whether to allow the application to issue as a patent,
and

_____ In compliance with this duty there is attached an information disclosure statement in accordance with 37 CFR 1.98.

PRIORITY CLAIM (35 U.S.C. § 119)

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

(complete (d) or (e))

- (d) X no such applications have been filed.
(e) _____ such applications have been filed as follows.

NOTE: Where item (c) is entered above and the International Application which designated the U.S. itself claimed priority check item (e), enter the details below and make the priority claim.

**A. PRIOR FOREIGN/PCT APPLICATION(S) FILED WITHIN 12 MONTHS
(6 MONTHS FOR DESIGN) PRIOR TO THIS APPLICATION
AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. § 119**

COUNTRY (OR INDICATE IF PCT)	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 37 USC 119
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>

**ALL FOREIGN APPLICATION(S), IF ANY FILED MORE THAN 12 MONTHS
(6 MONTHS FOR DESIGN) PRIOR TO THIS APPLICATION**

NOTE:

If the application filed more than 12 months from the filing date of this application is a PCT filing forming the basis for this application entering the United States as (1) the national stage, or (2) a continuation, divisional, or continuation-in-part, then also complete ADDED PAGES TO COMBINED DECLARATION AND POWER OF ATTORNEY FOR DIVISIONAL, CONTINUATION OR C-I-P APPLICATION for benefit of the prior U.S. or PCT application(s) under 35 U.S.C. § 120.

POWER OF ATTORNEY

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (List name and registration number)

Ronald J. Clark, Reg. No. 21658
Robert T. Braun, Reg. No. 36758

(check the following item, if applicable)

_____ Attached as part of this declaration and power of attorney is the authorization of the above-named attorney(s) to accept and follow instructions from my representative(s).

SEND CORRESPONDENCE TO

Attn: Robert T. Braun
DISCOVISION ASSOCIATES
P. O. BOX 19616
Irvine, CA 92713

DIRECT TELEPHONE CALLS TO:
(Name and telephone number)

Robert T. Braun
(714) 660-5000

DECLARATION

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

SIGNATURE(S)

NOTE: Carefully indicate the family (or last) name as it should appear on the filing receipt and all other documents.

Full name of sole or first inventor

DAVID

(GIVEN NAME)

L

(MIDDLE INITIAL OR NAME)

SCHELL

FAMILY (OR LAST NAME)

Inventor's Signature

Date

5/4/95

Country of Citizenship

United States

Residence

5307 Borrego Dr., Colorado Springs, Colorado 80918

Post Office Address

Same

Full name of second joint inventor, if any

(GIVEN

NAME)

(MIDDLE INITIAL OR NAME)

FAMILY (OR LAST NAME)

Inventor's Signature

Date

Country of Citizenship

Residence

Post Office Address

Full name of third joint inventor, if any

(GIVEN NAME)

(MIDDLE INITIAL OR NAME)

FAMILY (OR LAST NAME)

Inventor's Signature

Date

Country of Citizenship

Residence

Post Office Address

**CHECK PROPER BOX(ES) FOR ANY OF THE FOLLOWING ADDED PAGE(S) WHICH
FORM A PART OF THIS DECLARATION**

- ☐ Signature for fourth and subsequent joint inventors. *Number of pages added* _____.
* * *
- ☐ Signature by administrator(trix), executor(trix) or legal representative for deceased or incapacitated inventor. *Number of pages added* _____.
* * *
- ☐ Signature for inventor who refuses to sign or cannot be reached by person authorized under 37 CFR 1.47. *Number of pages added* _____.
* * *
- ☐ Added page for signature by one joint inventor on behalf of deceased inventor(s) where legal representative cannot be appointed in time (37 CFR 1.47).
* * *
- ☐ Added pages to combined declaration and power of attorney for divisional, continuation, or continuation-in-part (C-I-P) application.
☐ Number of pages added _____.
* * *
- ☐ Authorization of attorney(s) to accept and follow instructions from representative.

(If no further pages form a part of this Declaration, then end this Declaration with this page and check the following item:)

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* * *

08485896

Please acknowledge receipt of our Application Transmittal Sheet re Request for Divisional Application Under 37 CFR 1.60 (with Certificate of Express Mail thereon) of pending prior application serial number 08/420,380, filed 4/11/95 (in duplicate), along with the following documents: 223 pages of Specification; 5 pages of Claims; 1 page of Abstract; 128 pages of drawings; Appendix 1-1 (196 pages); Appendix 1-2 (77 pages); Appendix 1-3 (12 pages); Appendix 1-4 (9 pages); Appendix 1-5 (18 pages); Appendix 1-6 (36 pages); Appendix 2-1 (9 pages);

by affixing hereon the Patent Office date stamp (including Serial No.) and returning this care to our office. In re application of:

Inventor(s): SCHELL

Title: OPTICAL DISC SYSTEM

Mailed: June 7, 1995

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FIG. 77A

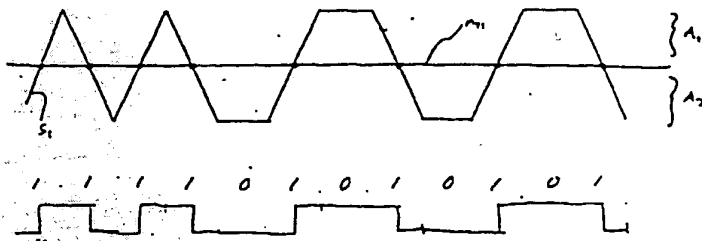
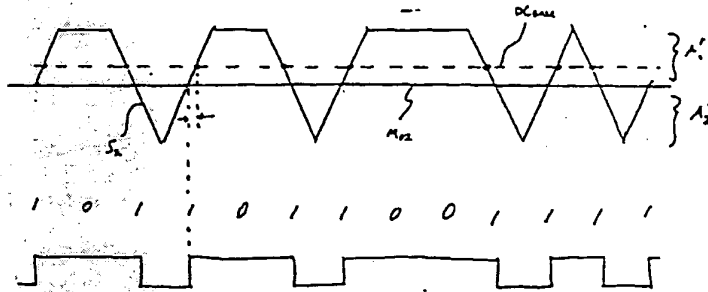


FIG. 77B



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READ CHANNEL 200

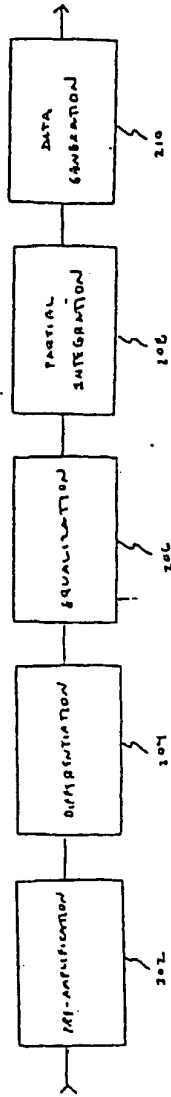


FIG. 4 78

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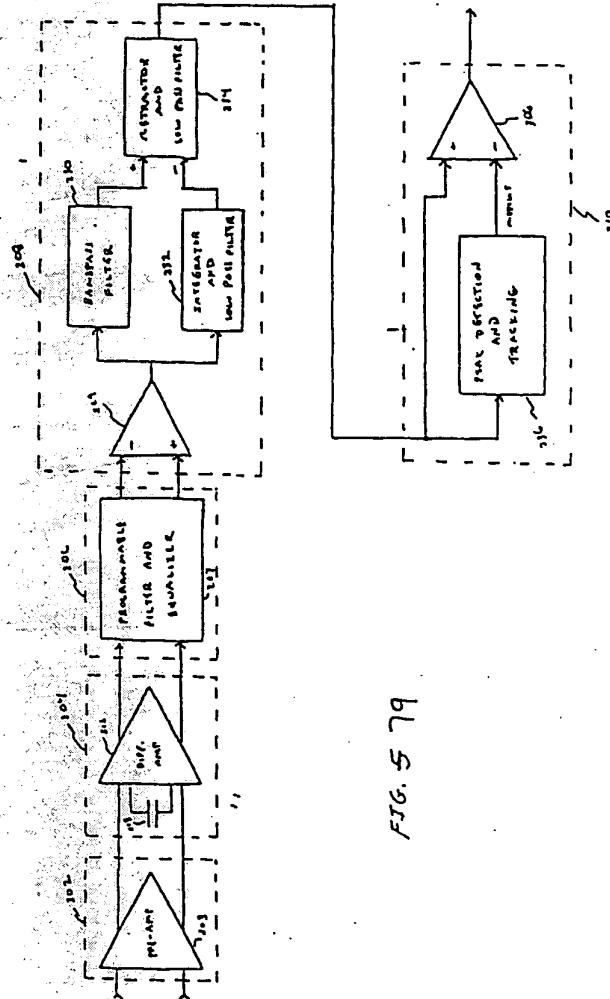


FIG. 5 79

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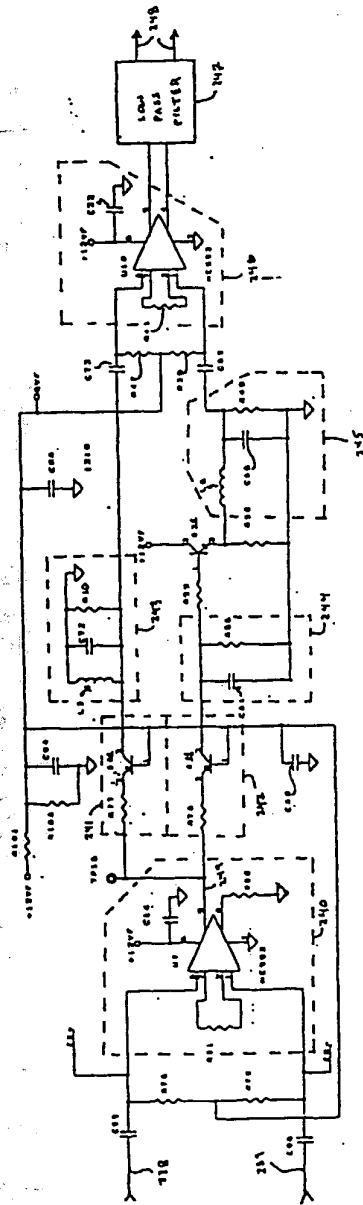


FIGURE 5B 79 B

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REF LEVEL 31.500dB /DIV 5.000dB
 MARKER 6 797 044.900Hz
 MAG (UDF) 17.456dB

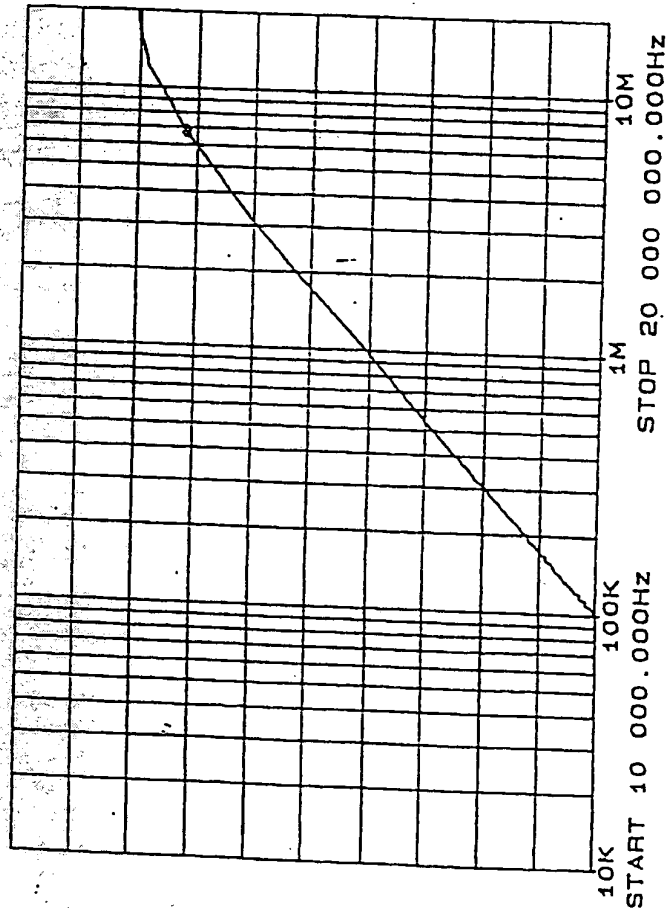


FIG. 6A-80A
 DIFFERENTIATOR

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1155270401: 2/18

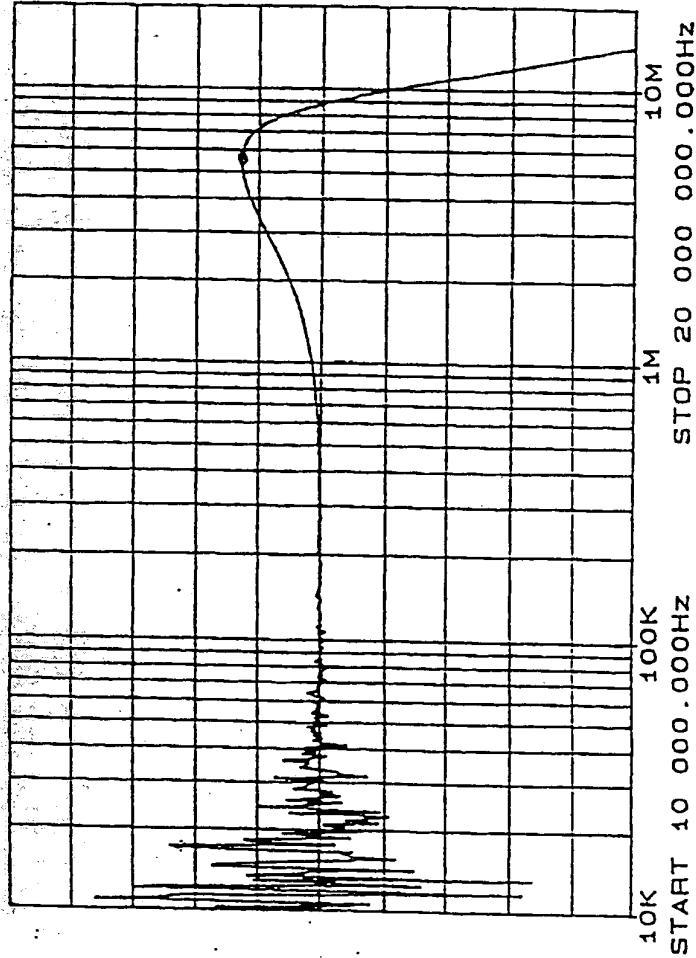
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REF LEVEL /DIV
26.510dB 5.000dB

MARKER 5 620 751.500Hz
MAG (UDF) 7.882dB



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FIG. 4B-80B
EQU-12.2

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REF LEVEL /DIV MARKER 5 105 657.600Hz
 9.600dB 6.000dB MAG (UDF) -26.669dB

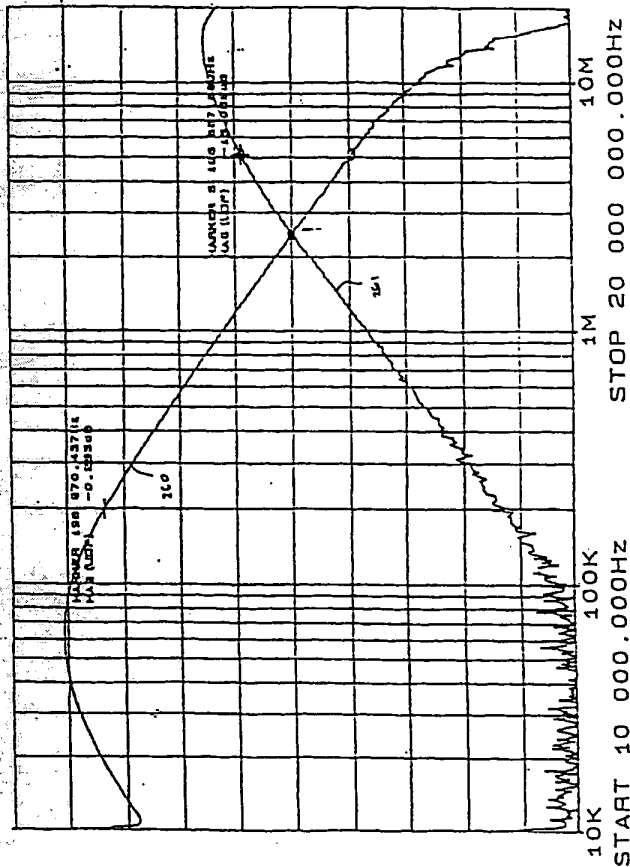


FIG. 6C 80 C

IN FLIGHT
 8400-1115

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7155270401-10/10

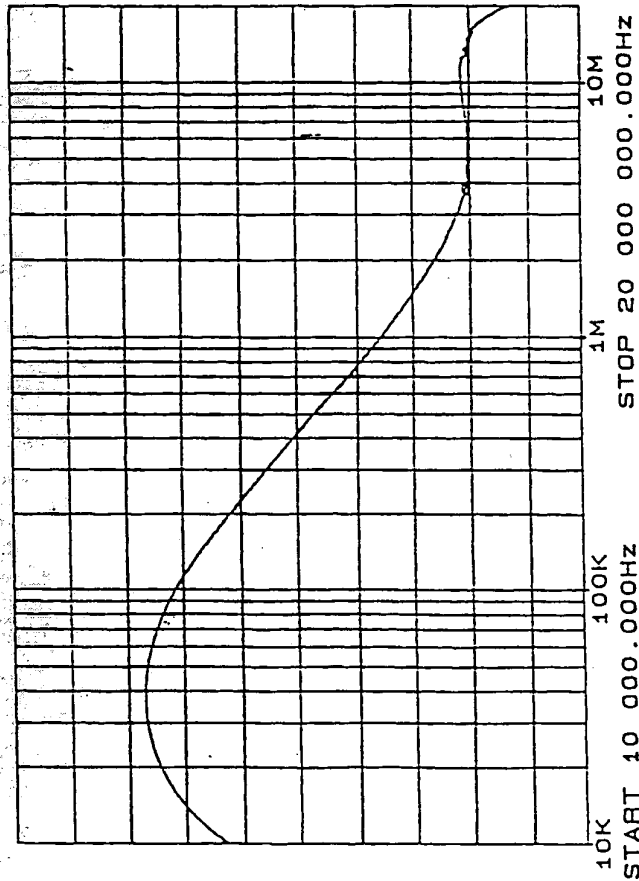
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FIG. 6D 80 D
PARTIAL INTEGRATION
THIN

REF LEVEL /DIV MARKER 3 767 954.400Hz
-2.250dBm 5.000dB MAG (UDF) -41.906dBm



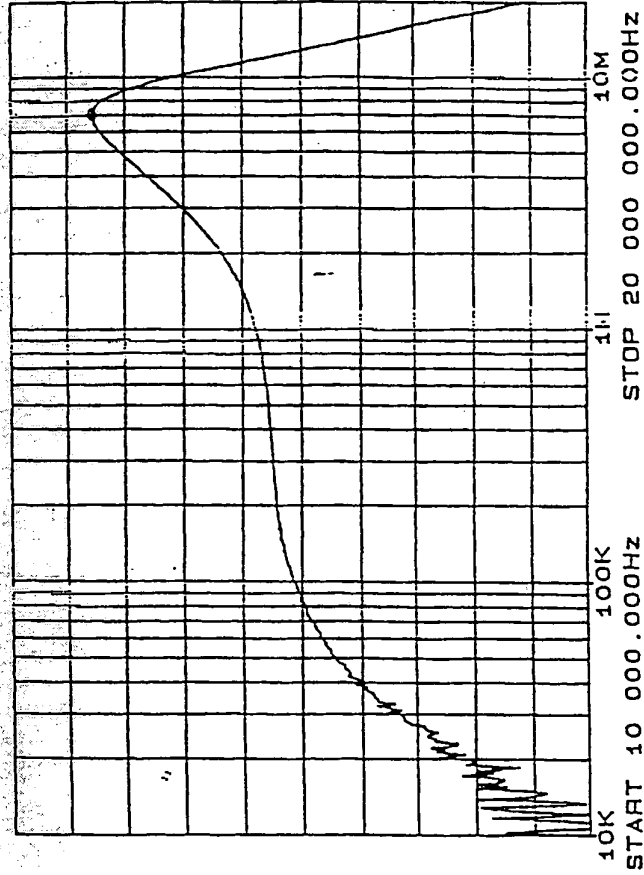
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FIG. 6E 80E
REF RESPONSE

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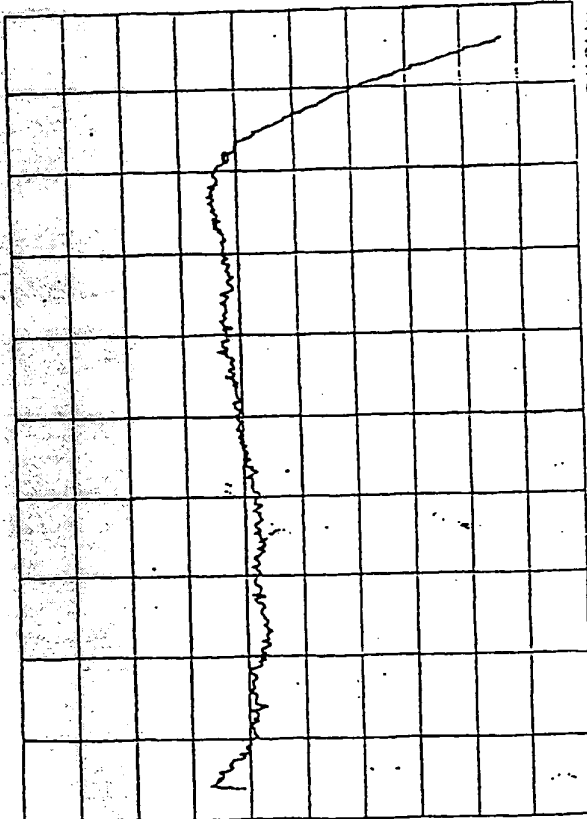
REF LEVEL /DIV MARKER 7 064 731.500Hz
31.510dB 5.000dB MAG (UDF) 24.277dB



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Docket No.: 210/079
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REF	LEVEL	/DIV	MARKER	B	357	500.000HZ
1.00	0.00SEC	5.000nSEC	DELAY (UDF)	203.93nSEC		



START 1 000 000.000HZ
STOP 10 000 000.000HZ
APERTURE 720.0KHZ
DELAY 22.000MS

TOTAL
GROUP DELAY
FIG: 6F 80 F

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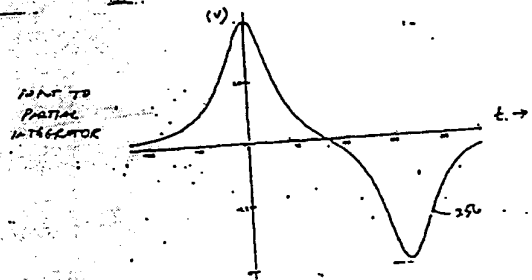
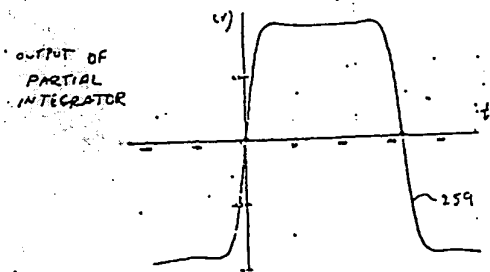
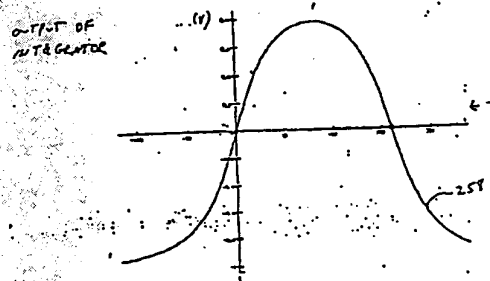
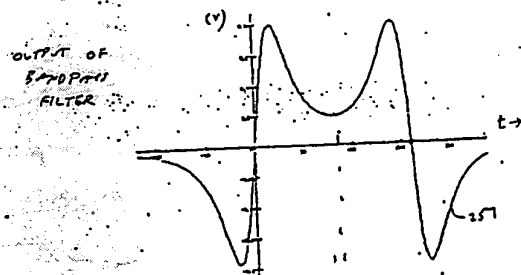


FIG. 6G 80G



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Docket No.: 210/079
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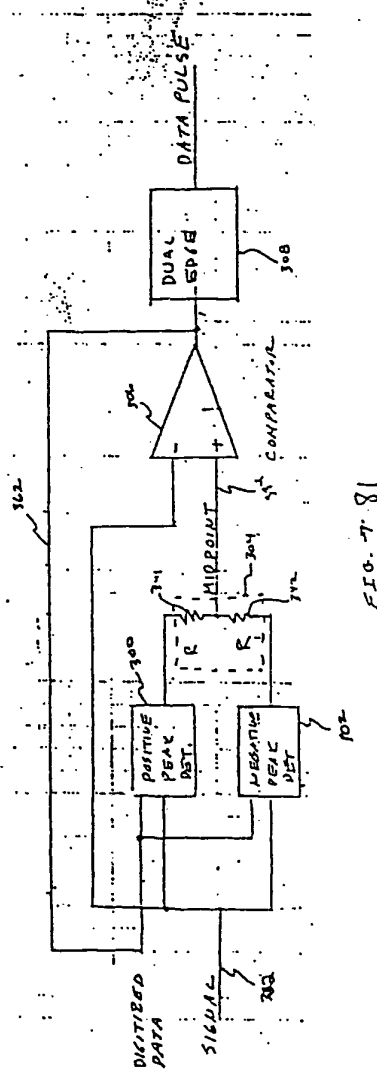


FIG. 7

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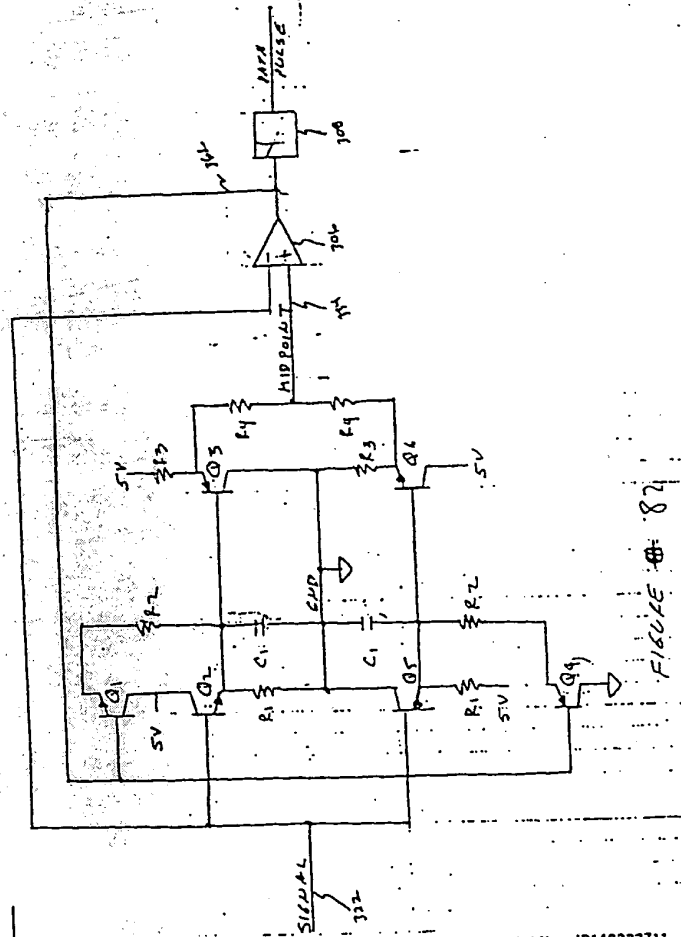


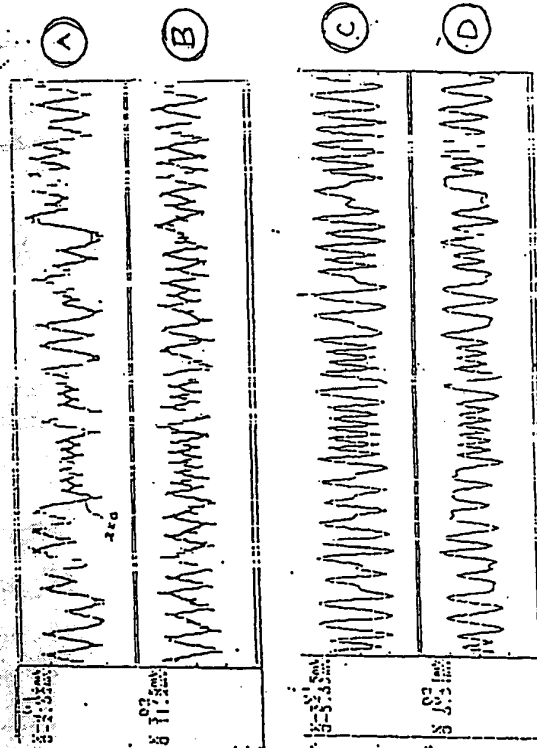
FIGURE 82

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 23-142 100 SHEETS
 23-144 200 SHEETS

7195273401:16/18
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A.P. 100

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